

STL Seattle 5755 8th Street East Tacoma, WA 98424

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TRANSMITTAL MEMORANDUM

DATE: February 6, 2002

TO: Janette Rau URS Corporation 1501 4th Ave Suite 1400 Seattle, WA 98101-1616

PROJECT: Former NPD Lab SI, Troutdale, OR

REPORT NUMBER: 103253

TOTAL NUMBER OF PAGES: 603

Enclosed are the test results for four samples received at STL Seattle on January 9, 2002.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

Dawn Werner Project Manager

Sample Identification:

| Lab. No. | Client ID | Date/Time Sampled | <u>Matrix</u> |
|----------|-----------|-------------------|---------------|
| 103253-1 | PD-001 | 01-08-02 13:15 | oil |
| 103253-2 | PD-002 | 01-08-02 13:40 | oil |
| 103253-3 | PD-302 | 01-08-02 13:50 | oil |
| 103253-4 | TB | 01-08-02 10:00 | liquid |



STL Seattle 5755 8th Street East Tacoma, WA 98424

Tel: 253 922 2310 Fax: 253 922 5047 www.stl-inc.com

ANALYTICAL NARRATIVE

Client:

URS Corporation

Date: February 15, 2002

Project:

Former NPD Lab SI, Troutdale, OR

Lab No.: 103253

Delivered By: Submitter

<u>Condition of samples upon receipt</u>: Samples were received in good condition. Cooler temperatures have been recorded on the cooler receipt form included in the chain of custody section of this package. Chain of custody was in order.

Sample Identification:

| Lab. No. | Client ID | Date Sampled | <u>Matrix</u> |
|----------|-----------|--------------|---------------|
| 103253-1 | PD-001 | 01-08-02 | oil |
| 103253-2 | PD-002 | 01-08-02 | oil |
| 103253-3 | PD-302 | 01-08-02 | oil |
| 103253-4 | TB | 01-08-02 | liquid |

SAMPLE EXTRACTION AND ANALYSIS

VOLATILE ORGANICS

Samples 103253-1 through 103253-4 were analyzed for volatile organics in accordance with EPA Method 8260B. The samples were prepared on 1-15-02 and analyzed on 1-16-02, which was within the required holding time.

The percent recovery of ethylbenzene-d10 (surrogate) in sample 103253-1 exceeded the quality control limits due to matrix interferences.

The percent recovery of dibromofluoromethane (surrogate) in sample 103253-4 and the blank spike associated with sample batch ITS1412 exceeded the quality control limits. No action was taken on this outlier based on acceptable recoveries of the remaining five surrogate compounds.

STL Seattle is a part of Severn Trent Laboratories, Inc.

Client:

URS Corporation

Date: February 15, 2002

Project:

Former NPD Lab SI, Troutdale, OR

Lab No.: 103253

VOLATILE ORGANICS CONTINUED

All other quality control was within the acceptance limits.

No other difficulties were encountered during the volatile organic analyses.

SEMIVOLATILE ORGANICS

Samples 103253-1 through 103253-3 were analyzed for semivolatile organics in accordance with EPA Method 8270C. The samples were extracted on 1-10-02 and analyzed on 1-11-02, which was within the required holding time.

The percent recoveries of several of the surrogate compounds in sample 103253-1 exceeded the quality control limits due to matrix interferences.

The reported values for naphthalene and 2-methylnaphthalene in sample 103253-1 exceeded the instrument calibration range. The sample underwent a secondary dilution with satisfactory results.

The percent recovery of 2,4,6-tribromophenol (surrogate)in sample 103253-2 exceeded the quality control limits due to matrix interferences.

The percent recoveries of nitrobenzene—d5 and 2-fluorophenol (surrogates) in sample 103253-3 exceeded the quality control limits due to matrix interferences.

All other quality control was within the acceptance limits.

No other difficulties were encountered during the semivolatile organic analyses.

ORGANOCHLORINE PESTICIDES AND PCBs

Samples 103253-1 through 103253-3, 103253-3MS and 103253-3MSD were analyzed for organochlorine pesticides and PCBs in accordance with EPA Methods 8081/8082. The samples were prepared/extracted on 1-17-02 and analyzed on 1-28-02, which was within the required holding time.

All reported values underwent second column confirmation. The data are flagged "C1" or "C2" as appropriate.

The percent recovery of decachlorobiphenyl (surrogate) in samples 103253-2, 103253-3, 103253S03 and 103253D03 exceeded the quality control limits due to matrix interferences.

The percent recoveries and/or the relative percent difference values for several of the compounds in the matrix spike / matrix spike duplicate analysis associated with sample 103253-3 exceeded the quality control limits. Matrix interferences are indicated based on acceptable recoveries of the associated blank spike (PE1453).

An end of run continuing calibration was not present in the analytical sequence associated with sample 103253-1. PCB was not identified in the sample.

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SOUND ANALYTICAL SERVICES, INC.

Client:

URS Corporation

Date: February 15, 2002

Project:

Former NPD Lab SI, Troutdale, OR

Lab No.: 103253

ORGANOCHLORINE PESTICIDES AND PCBs CONTINUED

All other quality control was within the acceptance limits.

No other difficulties were encountered during the chlorinated pesticides and PCB analyses.

CYANIDE

Samples 103253-1 through 103253-3 were analyzed for total cyanide in accordance with EPA Method 9012/9013. The samples were analyzed on 1-15-02, which was within the required holding time.

The percent recovery in the matrix spike analysis of sample 103253-1 exceeded the quality control limits. Matrix interferences are indicated based on acceptable recoveries of the associated blank spike (989-132).

All other quality control was within the acceptance limits.

No other difficulties were encountered during the total cyanide analyses.

IGNITABILITY

Samples 103253-1 through 103253-3 were analyzed for ignitability in accordance with EPA Method 1010. The samples were analyzed on 1-21-02.

All quality control was within the acceptance limits.

No difficulties were encountered during the ignitability analyses.

CORROSIVITY

Samples 103253-1 through 103253-3 were analyzed for corrosivity in accordance with EPA Method 9040. The samples were analyzed on 1-17-02.

All quality control was within the acceptance limits.

No difficulties were encountered during the corrosivity analyses.

REACTIVE CYANIDE

Samples 103253-1 through 103253-3 were analyzed for reactive cyanide in accordance with Chap. 7.3.3. The samples were analyzed on 1-18-02, which was within the required holding time.

The percent recovery in the matrix spike analysis of sample 103253-1 exceeded the quality control limits. Matrix interferences are indicated based on acceptable recoveries of the associated blank spike (989-

All other quality control was within the acceptance limits.

No other difficulties were encountered during the reactive cyanide analyses.

Client:

URS Corporation

Date: February 15, 2002

Project:

Former NPD Lab SI, Troutdale, OR

Lab No.: 103253

REACTIVE SULFIDE

Samples 103253-1 through 103253-3 were analyzed for reactive sulfide in accordance with Chap. 7.3.4. The samples were analyzed on 1-15-02, which was within the required holding time.

All quality control was within the acceptance limits.

No difficulties were encountered during the reactive sulfide analyses.

TOTAL METALS

Samples 103253-1 through 103253-3, 103253-2Dup, 103253-2MS and 103253-2MSD were analyzed for total metals in accordance with EPA Methods 6010/6020/7471. The samples were digested and analyzed on 1-11-02 for ICP and ICP-MS analyses. The samples were digested on 1-17-02 and analyzed on 1-20-02 for mercury. All metals analyses were performed within the required holding time.

The relative percent difference values for lead, nickel and silver in the duplicate analysis of sample 103253-02 exceeded the quality control limits due to analyte levels near the practical quantitation limits.

All other quality control was within the acceptance limits.

No other difficulties were encountered during the total metals analyses.

Metals data are submitted in CLP like format.

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-001 |
| Lab ID: | 103253-01 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/15/02 |
| Date Analyzed: | 1/16/02 |
| % Solids | |
| Dilution Factor | 1000 |

Volatile Organics by USEPA Method 5030/8260B

| | | | Recov | Recovery Limits | |
|----------------------|------------|-------|-------|-----------------|--|
| Surrogate | % Recovery | Flags | Low | High | |
| Dibromofluoromethane | 104 | | 84 | 114 | |
| Fluorobenzene | 102 | | 92 | 110 | |
| Toluene-D8 | 105 | | 92 | 106 | |
| Ethylbenzene-d10 | 117 | X9 | 88 | 110 | |
| Bromofluorobenzene | 105 | | 81 | 117 | |

| Result | | | | |
|---------------------------------|---------|---------|--------|-------|
| Analyte | (ug/kg) | PQL | MRL | Flags |
| Dichlorodifluoromethane | ND | 236000 | 118000 | |
| Chloromethane | ND | 236000 | 118000 | |
| Vinyl chloride | ND | 236000 | 118000 | |
| Bromomethane | ND | 471000 | 236000 | |
| Chloroethane | ND | 236000 | 118000 | |
| Trichlorofluoromethane | ND | 236000 | 118000 | |
| 1,1-Dichloroethene | ND | 236000 | 118000 | |
| -1,1,2-Trichlorotrifluoroethane | ND | 236000 | 118000 | |
| Carbon disulfide | ND | 236000 | 118000 | |
| Acetone | ND | 1180000 | 589000 | |
| Methylene chloride | ND | 236000 | 118000 | |
| —Methyl tert-butyl ether | ND | 236000 | 118000 | |
| trans-1,2-Dichloroethene | ND | 236000 | 118000 | |
| 1,1-Dichloroethane | ND | 236000 | 118000 | |
| 2-Butanone | ND K | 1180000 | 589000 | |
| cis-1,2-Dichloroethene | ND | 236000 | 118000 | |
| Bromochloromethane | ND | 236000 | 118000 | |
| Chloroform | ND | 236000 | 118000 | |
| 1,1,1-Trichloroethane | ND | 236000 | 118000 | |
| Carbon Tetrachloride | ND | 236000 | 118000 | |
| Benzene | ND | 236000 | 118000 | |
| 1,2-Dichloroethane | ND | 236000 | 118000 | |
| Trichloroethene | ND | 236000 | 118000 | • |
| 1,2-Dichloropropane | ND | 236000 | 118000 | |
| Bromodichloromethane | ND | 236000 | 118000 | |
| cis-1,3-Dichloropropene | ND | 236000 | 118000 | |

Volatile Organics by USEPA Method 5030/8260B data for 103253-01 continued...

| Result | | | |
|-----------------------------|---------|---------|--------|
| Analyte | (ug/kg) | PQL | MRL |
| → 4-Methyl-2-pentanone | ND | 1180000 | 589000 |
| Toluene | 391000 | 236000 | 118000 |
| trans-1,3-Dichloropropene | ND | 236000 | 118000 |
| 1,1,2-Trichloroethane | ND | 236000 | 118000 |
| Tetrachloroethene | ND | 236000 | 118000 |
| 2-Hexanone | ND < | 1180000 | 589000 |
| Dibromochloromethane | ND | 236000 | 118000 |
| 1,2-Dibromoethane | ND | 236000 | 118000 |
| Chlorobenzene | ND | 236000 | 118000 |
| Ethylbenzene | 478000 | 236000 | 118000 |
| 1,1,1,2-Tetrachloroethane | ND | 236000 | 118000 |
| m,p-Xylene | 1860000 | 471000 | 236000 |
| o-Xylene | 1030000 | 236000 | 118000 |
| Styrene | ND | 236000 | 118000 |
| Bromoform | ND | 236000 | 118000 |
| Isopropylbenzene | 393000 | 236000 | 118000 |
| 1,1,2,2-Tetrachloroethane | ND | 236000 | 118000 |
| 1,3-Dichlorobenzene | ND | 236000 | 118000 |
| 1,4-Dichlorobenzene | ND | 236000 | 118000 |
| 1,2-Dichlorobenzene | ND | 236000 | 118000 |
| 1,2-Dibromo-3-chloropropane | ND | 236000 | 118000 |
| 1,2,4-Trichlorobenzene | ND | 236000 | 118000 |
| Cyclohexane | ND | 236000 | 118000 |
| Methyl acetate | ND | 1180000 | 589000 |
| Methylcyclohexane | ND | 236000 | 118000 |

MN 3/20/02

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Volatile Organics by USEPA Method 5030/8260B

| | | | Recov | ery Limits | |
|----------------------|------------|-------|-------|------------|--|
| Surrogate | % Recovery | Flags | Low | High | |
| Dibromofluoromethane | 108 | | 84 | 114 | |
| Fluorobenzene | 108 | | 92 | 110 | |
| Toluene-D8 | 105 | | 92 | 106 | |
| Ethylbenzene-d10 | 99.7 | | 88 | 110 | |
| Bromofluorobenzene | 98.7 | | 81 | 117 | |

| | Result | | | |
|--------------------------------|---------|--------|--------|-----|
| Analyte | (ug/kg) | PQL | MRL F | ags |
| Dichlorodifluoromethane | ND | 40500 | 20300 | _ |
| Chloromethane | ND | 40500 | 20300 | |
| Vinyl chloride | ND | 40500 | 20300 | |
| Bromomethane | ND | 81100 | 40500 | |
| Chloroethane | ND | 40500 | 20300 | |
| Trichlorofluoromethane | ND | 40500 | 20300 | |
| 1,1-Dichloroethene | ND | 40500 | 20300 | |
| 1,1,2-Trichlorotrifluoroethane | ND | 40500 | 20300 | |
| Carbon disulfide | ND | 40500 | 20300 | |
| Acetone | ND | 203000 | 101000 | |
| Methylene chloride | ND . | 40500 | 20300 | |
| Methyl tert-butyl ether | ND | 40500 | 20300 | |
| trans-1,2-Dichloroethene | ND | 40500 | 20300 | |
| 1,1-Dichloroethane | ND | 40500 | 20300 | |
| 2-Butanone | ND € | 203000 | 101000 | |
| cis-1,2-Dichloroethene | ND | 40500 | 20300 | |
| Bromochloromethane | ND | 40500 | 20300 | |
| Chloroform | ND | 40500 | 20300 | |
| 1,1,1-Trichloroethane | ND | 40500 | 20300 | |
| Carbon Tetrachloride | ND | 40500 | 20300 | |
| Benzene | ND | 40500 | 20300 | |
| 1,2-Dichloroethane | ND | 40500 | 20300 | |
| Trichloroethene | ND | 40500 | 20300 | |
| 1,2-Dichloropropane | ND | 40500 | 20300 | |
| Bromodichloromethane | ND | 40500 | 20300 | |
| cis-1,3-Dichloropropene | ND | 40500 | 20300 | |

Volatile Organics by USEPA Method 5030/8260B data for 103253-02 continued...

| Result | | | | |
|-----------------------------|---------|--------|--------|--|
| Analyte | (ug/kg) | PQL | MRL | |
| 4-Methyl-2-pentanone | ND | 203000 | 101000 | |
| Toluene | ND | 40500 | 20300 | |
| trans-1,3-Dichloropropene | ND | 40500 | 20300 | |
| 1,1,2-Trichloroethane | ND | 40500 | 20300 | |
| Tetrachloroethene | ND | 40500 | 20300 | |
| 2-Hexanone | ND (R | 203000 | 101000 | |
| Dibromochloromethane | ND | 40500 | 20300 | |
| 1,2-Dibromoethane | ND | 40500 | 20300 | |
| Chlorobenzene | ND | 40500 | 20300 | |
| Ethylbenzene | 188000 | 40500 | 20300 | |
| 1,1,1,2-Tetrachloroethane | ND | 40500 | 20300 | |
| m,p-Xylene | 692000 | 81100 | 40500 | |
| o-Xylene | 244000 | 40500 | 20300 | |
| Styrene | ND | 40500 | 20300 | |
| Bromoform | ND | 40500 | 20300 | |
| Isopropylbenzene | ND | 40500 | 20300 | |
| 1,1,2,2-Tetrachloroethane | ND | 40500 | 20300 | |
| 1,3-Dichlorobenzene | ND | 40500 | 20300 | |
| 1,4-Dichlorobenzene | ND | 40500 | 20300 | |
| 1,2-Dichlorobenzene | ND | 40500 | 20300 | |
| 1,2-Dibromo-3-chloropropane | ND | 40500 | 20300 | |
| 1,2,4-Trichlorobenzene | ND | 40500 | 20300 | |
| Cyclohexane | ND | 40500 | 20300 | |
| Methyl acetate | ND | 203000 | 101000 | |
| Methylcyclohexane | ND | 40500 | 20300 | |

mn 3/20/02

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-302 |
| Lab ID: | 103253-03 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/15/02 |
| Date Analyzed: | 1/16/02 |
| % Solids | |
| Dilution Factor | 1000 |

Volatile Organics by USEPA Method 5030/8260B

| | | | Recov | ery Limits | |
|----------------------|------------|-------|-------|------------|--|
| Surrogate | % Recovery | Flags | Low | High | |
| Dibromofluoromethane | 107 | | 84 | 114 | |
| Fluorobenzene | 104 | | 92 | 110 | |
| Toluene-D8 | 101 | | 92 | 106 | |
| Ethylbenzene-d10 | 99.3 | | 88 | 110 | |
| Bromofluorobenzene | 97.6 | | 81 | 117 | |

| | Result | | |
|--------------------------------|---------|--------|-----------|
| Analyte | (ug/kg) | PQL | MRL Flags |
| Dichlorodifluoromethane | ND | 39900 | 19900 |
| Chloromethane | ND | 39900 | 19900 |
| Vinyl chloride | ND | 39900 | 19900 |
| Bromomethane | ND | 79800 | 39900 |
| Chloroethane | ND | 39900 | 19900 |
| Trichlorofluoromethane | ND | 39900 | 19900 |
| 1,1-Dichloroethene | ND | 39900 | 19900 |
| 1,1,2-Trichlorotrifluoroethane | ND | 39900 | 19900 |
| Carbon disulfide | ND | 39900 | 19900 |
| Acetone | ND | 199000 | 99700 |
| Methylene chloride | ND | 39900 | 19900 |
| Methyl tert-butyl ether | ND | 39900 | 19900 |
| trans-1,2-Dichloroethene | ND | 39900 | 19900 |
| 1,1-Dichloroethane | ND | 39900 | 19900 |
| 2-Butanone | ND (< | 199000 | 99700 |
| cis-1,2-Dichloroethene | ND | 39900 | 19900 |
| Bromochloromethane | ND | 39900 | 19900 |
| Chloroform | ND | 39900 | 19900 |
| 1,1,1-Trichloroethane | ND | 39900 | 19900 |
| Carbon Tetrachloride | ND | 39900 | 19900 |
| Benzene | ND | 39900 | 19900 |
| 1,2-Dichloroethane | ND | 39900 | 19900 |
| Trichloroethene | ND | 39900 | 19900 |
| 1,2-Dichloropropane | ND | 39900 | 19900 |
| Bromodichloromethane | ND | 39900 | 19900 |
| cis-1,3-Dichloropropene | ND | 39900 | 19900 |

Volatile Organics by USEPA Method 5030/8260B data for 103253-03 continued...

| Result | | | | | | |
|-----------------------------|---------|--------|-------|--|--|--|
| Analyte | (ug/kg) | PQL | MRL | | | |
| 4-Methyl-2-pentanone | ND | 199000 | 99700 | | | |
| Toluene | ND | 39900 | 19900 | | | |
| trans-1,3-Dichloropropene | ND | 39900 | 19900 | | | |
| 1,1,2-Trichloroethane | ND | 39900 | 19900 | | | |
| Tetrachloroethene | ND | 39900 | 19900 | | | |
| 2-Hexanone | ND R | 199000 | 99700 | | | |
| Dibromochloromethane | ND | 39900 | 19900 | | | |
| 1,2-Dibromoethane | ND | 39900 | 19900 | | | |
| Chlorobenzene | ND | 39900 | 19900 | | | |
| Ethylbenzene | 135000 | 39900 | 19900 | | | |
| 1,1,1,2-Tetrachloroethane | ND | 39900 | 19900 | | | |
| m,p-Xylene | 436000 | 79800 | 39900 | | | |
| o-Xylene | 181000 | 39900 | 19900 | | | |
| Styrene | ND | 39900 | 19900 | | | |
| Bromoform | ND | 39900 | 19900 | | | |
| Isopropylbenzene | ND | 39900 | 19900 | | | |
| 1,1,2,2-Tetrachloroethane | ND | 39900 | 19900 | | | |
| 1,3-Dichlorobenzene | ND | 39900 | 19900 | | | |
| 1,4-Dichlorobenzene | ND | 39900 | 19900 | | | |
| 1,2-Dichlorobenzene | ND | 39900 | 19900 | | | |
| 1,2-Dibromo-3-chloropropane | ND | 39900 | 19900 | | | |
| 1,2,4-Trichlorobenzene | ND | 39900 | 19900 | | | |
| Cyclohexane | ND | 39900 | 19900 | | | |
| Methyl acetate | ND | 199000 | 99700 | | | |
| Methylcyclohexane | ND | 39900 | 19900 | | | |

MN 3/20/02

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | TB |
| Lab ID: | 103253-04 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/10/02 |
| Date Analyzed: | 1/10/02 |
| % Solids | - |
| Dilution Factor | 1 |

Volatile Organics by USEPA Method 5030/8260B

| | | | Recovery Limits | | |
|----------------------|------------|-------|-----------------|------|--|
| Surrogate | % Recovery | Flags | Low | High | |
| Dibromofluoromethane | 83.9 | N | 85 | 114 | |
| Fluorobenzene | 91.8 | | 91 | 110 | |
| Toluene-D8 | 95.2 | | 92 | 107 | |
| Ethylbenzene-d10 | 102 | | 86 | 108 | |
| Bromofluorobenzene | 98.5 | | 87 | 110 | |

| | Result | | |
|--------------------------------|--------|-----|-----------|
| Analyte | (ug/L) | PQL | MRL Flags |
| Dichlorodifluoromethane | ND | 1 | 0.5 |
| Chloromethane | ND | 1 | 0.5 |
| Vinyl chloride | ND | 1 | 0.5 |
| Bromomethane | ND | 2 | 1 |
| Chloroethane | ND | 1 | 0.5 |
| Trichlorofluoromethane | ND | 1 | 0.5 |
| 1,1-Dichloroethene | ND | 1 | 0.5 |
| 1,1,2-Trichlorotrifluoroethane | ND | 1 | 0.5 |
| Carbon disulfide | ND | 1 | 0.5 |
| Acetone | ND | 5 | 2.5 |
| Methylene chloride | ND | 1 | 0.5 |
| Methyl tert-butyl ether | ND | 1 | 0.5 |
| trans-1,2-Dichloroethene | ND | 1 | 0.5 |
| 1,1-Dichloroethane | ND | 1 | 0.5 |
| 2-Butanone | ND R | 5 | 2.5 |
| cis-1,2-Dichloroethene | ND | 1 | 0.5 |
| Bromochloromethane | ND | 1 | 0.5 |
| Chloroform | ND | 1 | 0.5 |
| 1,1,1-Trichloroethane | ND | 1 | 0.5 |
| Carbon Tetrachloride | ND | 1 | 0.5 |
| Benzene | ND | 1 | 0.5 |
| 1,2-Dichloroethane | ND | 1 | 0.5 |
| Trichloroethene | ND | 1 | 0.5 |
| 1,2-Dichloropropane | ND | 1 | 0.5 |
| Bromodichloromethane | ND | 1 | 0.5 |
| cis-1,3-Dichloropropene | ND | 1 | 0.5 |

Volatile Organics by USEPA Method 5030/8260B data for 103253-04 continued...

| | Result | | |
|-----------------------------|--------|-----|-----|
| Analyte | (ug/L) | PQL | MRL |
| 4-Methyl-2-pentanone | ND | 5 | 2.5 |
| Toluene | ND | 1 | 0.5 |
| trans-1,3-Dichloropropene | ND | 1 | 0.5 |
| 1,1,2-Trichloroethane | ND | 1 | 0.5 |
| Tetrachloroethene | ND | 1 | 0.5 |
| 2-Hexanone | ND R | 5 | 2.5 |
| Dibromochloromethane | ND ' | 1 | 0.5 |
| 1,2-Dibromoethane | ND | 1 | 0.5 |
| Chlorobenzene | ND | 1 | 0.5 |
| Ethylbenzene | ND | 1 | 0.5 |
| 1,1,1,2-Tetrachloroethane | ND | 1 | 0.5 |
| m,p-Xylene | ND | 2 | 1 |
| o-Xylene | ND | 1 | 0.5 |
| Styrene | ND | 1 | 0.5 |
| Bromoform | ND | 1 | 0.5 |
| Isopropylbenzene | ND | 1 | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND | 1 | 0.5 |
| 1,3-Dichlorobenzene | ND | 1 | 0.5 |
| 1,4-Dichlorobenzene | ND | 1 | 0.5 |
| 1,2-Dichlorobenzene | ND | 1 | 0.5 |
| 1,2-Dibromo-3-chloropropane | ND | 1 | 0.5 |
| 1,2,4-Trichlorobenzene | ND | 1 | 0.5 |
| Cyclohexane | ND | 1 | 0.5 |
| Methyl acetate | ND | 5 | 2.5 |
| Methylcyclohexane | ND | 1 | 0.5 |

mn 3/20/02

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-001 |
| Lab ID: | 103253-01 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/10/02 |
| Date Analyzed: | 1/11/02 |
| % Solids | |
| Dilution Factor | 100 |

Semivolatile Organics by USEPA Method 8270

| | | | Recovery Limits | | |
|------------------------|------------|-------|-----------------|------|--|
| Surrogate | % Recovery | Flags | Low | High | |
| Nitrobenzene - d5 | - | X9 | 45 | 135 | |
| 2 - Fluorobiphenyl | 57 | | 51 | 135 | |
| p - Terphenyl - d14 | 341 | X9 | 45 | 135 | |
| Phenol - d5 | - | X9 | 43 | 140 | |
| 2 - Fluorophenol | - | X9 | 37 | 140 | |
| 2,4,6 - Tribromophenol | 30 | X9 | 36 | 140 | |

| | Result | | | |
|----------------------------|---------------------------|--------------|------|-------|
| Analyte | (ug/kg) | PQL | MDL | Flags |
| Phenol | ND Ç | 9290 | 1860 | |
| bis(2-Chloroethyl)ether | ND | 9290 | 1770 | |
| 2-Chlorophenol | ND | 9290 | 1390 | |
| 2-Methylphenol | ND | 9290 | 1120 | |
| 3- & 4-Methylphenol | ND | 9290 | 1380 | |
| N-nitroso-di-n-propylamine | ND | 9290 | 1020 | |
| Hexachloroethane | ND | 9290 | 1770 | |
| Nitrobenzene | ND | 9290 | 1270 | |
| Isophorone | ND | 9290 | 1300 | |
| 2-Nitrophenol | ND | 9290 | 1300 | |
| 2,4-Dimethylphenol | ND | 9290 | 1020 | |
| Benzoic Acid | ND | 46500 | 3160 | |
| bis(2-Chloroethoxy)methane | ND | 9290 | 1120 | • |
| 2,4-Dichlorophenol | ND 🎶 | 9290 | 1020 | |
| Naphthalene | 960000 707 000 | 5 929 | 435 | E O |
| 4-Chloroaniline | ND (S | 9290 | 864 | |
| Hexachlorobutadiene | ND \ | 9290 | 836 | |
| 4-Chloro-3-methylphenol | ND 🎶 | 9290 | 1020 | |
| 2-Methylnaphthalene | 383000 27600 0 | <u>5</u> 929 | 145 | Æ n |
| Hexachlorocyclopentadiene | ND (S | 9290 | 1310 | |
| 2,4,6-Trichlorophenol | ND | 9290 | 1240 | |
| 2,4,5-Trichlorophenol | ND | 9290 | 1670 | ٠. |
| 2-Chloronaphthalene | ND (| 929 | 279 | |
| 2-Nitroaniline | ND | 9290 | 1210 | |
| Dimethylphthalate | ND 🎶 | 9290 | 1020 | |
| Acenaphthylene | 1300 3 | 929 | 405 | |

Semivolatile Organics by USEPA Method 8270 data for 103253-01 continued...

| | | Resu | ılt | | |
|----------------------------|----|--------------|-------|-------|------|
| Analyte | | (ug/k | g) | PQL | MDL |
| 2,6-Dinitrotoluene | ND | R | | 9290 | 1670 |
| 3-Nitroaniline | ND | R | | 9290 | 1580 |
| Acenaphthene | | | 6780 | 929 | 460 |
| 2,4-Dinitrophenol | ND | Ŗ | | 23200 | 2230 |
| 4-Nitrophenol | ND | | | 23200 | 1770 |
| Dibenzofuran | ND | | | 9290 | 1080 |
| 2,4-Dinitrotoluene | ND | - 1 | | 9290 | 1210 |
| Diethylphthalate | ND | | | 9290 | 1580 |
| 4-Chlorophenylphenylether | ND | \mathbf{V} | | 9290 | 1560 |
| Fluorene | | • | 8270 | S 929 | 434 |
| 4-Nitroaniline | ND | 15 | | 9290 | 1580 |
| 4,6-Dinitro-2-methylphenol | ND | | | 23200 | 3440 |
| N-Nitrosodiphenylamine | ND | ĺ | | 9290 | 743 |
| 4-Bromophenylphenylether | ND | | | 9290 | 1240 |
| Hexachlorobenzene | ND | - | | 9290 | 1020 |
| Pentachlorophenol | ND | J | • | 9290 | 1950 |
| Phenanthrene | | ~ | 25900 | 929 | 198 |
| Anthracene | ND | 2 | | 929 | 234 |
| Di-n-butylphthalate | ND | R | | 46500 | 8080 |
| Fluoranthene | | | 1770 | 929 | 434 |
| Pyrene | ND | R | | 929 | 307 |
| Butylbenzyiphthalate | ND | } | | 9290 | 1770 |
| 3,3'-Dichlorobenzidine | ND | | | 9290 | 1020 |
| Benzo(a)anthracene | ND | - 1 | | 1860 | 567 |
| Chrysene | ND | | | 1860 | 545 |
| bis(2-Ethylhexyl)phthalate | ND | l | | 23200 | 3810 |
| Di-n-octylphthalate | ND | - 1 | | 9290 | 2420 |
| Benzofluoranthenes | ND | | | 1860 | 409 |
| Benzo(a)pyrene | ND | | | 929 | 545 |
| Indeno(1,2,3-cd)pyrene | ND | 1 | | 929 | 217 |
| Dibenz(a,h)anthracene | ND | | | 929 | 217 |
| Benzo(g,h,i)perylene | ND | | | 929 | 153 |
| Carbazole | ND | | | 23200 | 3620 |
| Atrazine | ND | 1 | | 9290 | 1580 |
| Biphenyl | | • | 25600 | | 1570 |
| Acetophenone | ND | R | - | 9290 | 1050 |
| Benzaldehyde | ND | C_ | | 9290 | 787 |
| | | Lagrand | | | |

mw 3/20/02

| Client Name | URS Corporation |
|-----------------|-------------------|
| Client ID: | PD-001 - dilution |
| Lab ID: | 103253L01 |
| Date Received: | - |
| Date Prepared: | 1/10/02 |
| Date Analyzed: | 1/11/02 |
| % Solids | |
| Dilution Factor | 1000 |

Semivolatile Organics by USEPA Method 8270

| | | | Recovery Limits | | |
|------------------------|------------|-------|-----------------|------|--|
| Surrogate | % Recovery | Flags | Low | High | |
| Nitrobenzene - d5 | - | X8 | 45 | 135 | |
| 2 - Fluorobiphenyl | - | X8 | 51 | 135 | |
| p - Terphenyl - d14 | - | X8 | 45 | 135 | |
| Phenol - d5 | - | X8 | 43 | 140 | |
| 2 - Fluorophenol | - | X8 | 37 | 140 | |
| 2,4,6 - Tribromophenol | - | X8 | 36 | 140 | |
| | | | ₹. | | |

Sample results are on an as received basis.

| , | i | Result | | | |
|-----------------------------|------|--------|----------------|-------|-------|
| Analyte | (| ug/kg) | P.QĹ | MDL | Flags |
| Phenol | ND | | <i>,</i> 92900 | 18600 | _ |
| bis(2-Chloroethyl)ether | ND | | 92900 | 17700 | |
| 2-Chlorophenol | ND | | 92900 | 13900 | |
| 1,3-Dichlorobenzene | ND | , par | 92900 | 13000 | |
| 1,4-Dichlorobenzene | ND | | 92900 | 14900 | |
| Benzyl Alcohol | ND | | 92900 | 19500 | |
| 1,2-Dichlorobenzene | ND | | 92900 | 9570 | |
| 2-Methylphenol | ND | | 92900 | 11200 | |
| bis(2-Chloroisopropyl)ether | ND | / | 92900 | 24200 | |
| 3- & 4-Methylphenol | ND / | / | 92900 | 13800 | |
| N-nitroso-di-n-propylamine | ND/ | | 92900 | 10200 | |
| Hexachloroethane | ŊØ | | 92900 | 17700 | |
| Nitrobenzene | √ND | | 92900 | 12700 | |
| Isophorone | / ND | | 92900 | 13000 | |
| 2-Nitrophenol | / ND | | 92900 | 13000 | |
| 2,4-Dimethylphenol | ND | | 92900 | 10200 | |
| Benzoic Acid | ND | | 465000 | 31600 | |
| bis(2-Chloroethoxy)methane/ | ND | | 92900 | 11200 | |
| 2,4-Dichlorophenol | ND | | 92900 | 10200 | |
| 1,2,4-Trichlorobenzene | ND | | 92900 | 7710 | |
| Naphthalene / | | 960000 | 9290 | 4350 | • |
| 4-Chloroaniline | ND | | 92900 | 8640 | |
| Hexachlorobutadieņé | ND | | 92900 | 8360 | • |
| 4-Chloro-3-methylohenol | ND | | 92900 | 10200 | |
| 2-Methylnaphthalene | | 383000 | 9290 | 1450 | |
| Hexachlorocyclopentadiene | ND | | 92900 | 13100 | |

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Semivolatile Organics by USEPA Method 8270 data for 103253L01 continued...

| Result | | | | | | |
|----------------------------|------|-----------------------------|---------------------|----------------|--|--|
| Analyte | (1 | u g/kg) | PQL | MDL | | |
| 2,4,6-Trichlorophenol | ND | | 92900 | 12400 | | |
| 2,4,5-Trichlorophenol | ND | | 92900 | 16700 | | |
| 2-Chloronaphthalene | ND | | 9290 | 2790 | | |
| 2-Nitroaniline | ND | | 92900 | 12100 | | |
| Dimethylphthalate | ND | | 92900 | JACK 10200 | | |
| Acenaphthylene | ND | | 9290 | 4050 | | |
| 2,6-Dinitrotoluene | ND | | 92900 🦯 | 16700 | | |
| 3-Nitroaniline | ND | | 92900 🦯 | 15800 | | |
| Acenaphthene | | 13000 | 9290/ | 4600 | | |
| 2,4-Dinitrophenol | ND | | 232000 | 22300 | | |
| 4-Nitrophenol | ND | | 23 <u>2</u> 000 | 17700 | | |
| Dibenzofuran | ND | | , 9 2900 | 10800 | | |
| 2,4-Dinitrotoluene | ND | | √ 92900 | 12100 | | |
| Diethylphthalate | ND | | 92900 | 15800 | | |
| 4-Chlorophenylphenylether | ND | | / 92900 | 15600 | | |
| Fluorene | | 10200 | 9290 | 4340 | | |
| 4-Nitroaniline | ND | | 92900 | 15800 | | |
| 4,6-Dinitro-2-methylphenol | ND | 1 | 232000 | 34400 | | |
| N-Nitrosodiphenylamine | ND | مح _م ح | 92900 | 7430 | | |
| 4-Bromophenylphenylether | ND | _s p ^d | 92900 | 12400 | | |
| Hexachlorobenzene | ND | 1 | 92900 | 10200 | | |
| Pentachlorophenol | ND | | 92900 | 19500 | | |
| Phenanthrene | | / 26000 | 9290 | 1980 | | |
| Anthracene | ND | 1 | 9290 | 2340 | | |
| Di-n-butylphthalate | ND | | 465000 | 80800 | | |
| Fluoranthene | ND / | , i | 9290 | 4340 | | |
| Pyrene | ND / | | 9290 | 3070 | | |
| Butylbenzylphthalate | ND/ | | 92900 | 17700 | | |
| 3,3'-Dichlorobenzidine | NØ | | 92900 | 10200 | | |
| Benzo(a)anthracene | ND | | 18600 | 5670 | | |
| Chrysene | /ND | | 18600 | 5450 | | |
| bis(2-Ethylhexyl)phthalate | / ND | | 232000 | 38100 | | |
| Di-n-octylphthalate | / ND | | 92900 | 24200 | | |
| Benzofluoranthenes | ND | | 18600 | 4090 | | |
| Benzo(a)pyrene | ND | | 9290 | 5450 | | |
| Indeno(1,2,3-cd)pyrene | ND | | 9290 | 2170 | | |
| Dibenz(a,h)anthracene | ND | | 9290 | 2170 | | |
| Benzo(g,h,i)perylene | ND | | 9290 | 1530 | | |
| Carbazole | ND | | 232000 | 36200 | | |
| Atrazine | ND | | 92900 | | | |
| Biphenyl | אט | 26900 | 92900 92900 | 15800 15700 | | |
| Acetophenone | ND | 20900 | 92900 92900 | 10500 | | |
| Benzaldehyde | ND | | 92900 | 7870 | | |
| Donzaidonydo / | ND | | 92900 | 1010 | | |

is the previous analysis

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-002 |
| Lab ID: | 103253-02 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/10/02 |
| Date Analyzed: | 1/11/02 |
| % Solids | |
| Dilution Factor | 100 |

Semivolatile Organics by USEPA Method 8270

| Surrogate | % Recovery | Flags | Low | High |
|------------------------|------------|-------|-----|------|
| Nitrobenzene - d5 | 101 | | 45 | 135 |
| 2 - Fluorobiphenyl | 65 | | 51 | 135 |
| p - Terphenyl - d14 | 60 | | 45 | 135 |
| Phenol - d5 | 95 | | 43 | 140 |
| 2 - Fluorophenol | 44 | | 37 | 140 |
| 2,4,6 - Tribromophenol | 35 | X9 | 36 | 140 |

| | | Result | | | |
|----------------------------|----|---------|-------|------|-------|
| Analyte | | (ug/kg) | PQL | MDL | Flags |
| Phenol | ND | | 9890 | 1980 | |
| bis(2-Chloroethyl)ether | ND | | 9890 | 1890 | |
| 2-Chlorophenol | ND | | 9890 | 1480 | |
| 2-Methylphenol | ND | | 9890 | 1190 | |
| 3- & 4-Methylphenol | ND | | 9890 | 1460 | |
| N-nitroso-di-n-propylamine | ND | | 9890 | 1090 | |
| Hexachloroethane | ND | | 9890 | 1880 | |
| Nitrobenzene | ND | , | 9890 | 1350 | |
| Isophorone | ND | | 9890 | 1380 | |
| 2-Nitrophenol | ND | | 9890 | 1380 | |
| 2,4-Dimethylphenol | ND | | 9890 | 1090 | |
| Benzoic Acid | ND | | 49400 | 3360 | |
| bis(2-Chloroethoxy)methane | ND | | 9890 | 1190 | |
| 2,4-Dichlorophenol | ND | | 9890 | 1090 | |
| Naphthalene | | 24500 | 989 | 463 | |
| 4-Chloroaniline | ND | | 9890 | 919 | |
| Hexachlorobutadiene | ND | | 9890 | 890 | |
| 4-Chloro-3-methylphenol | ND | | 9890 | 1090 | |
| 2-Methylnaphthalene | | 2870 | 989 | 154 | |
| Hexachlorocyclopentadiene | ND | | 9890 | 1390 | |
| 2,4,6-Trichlorophenol | ND | | 9890 | 1310 | |
| 2,4,5-Trichlorophenol | ND | | 9890 | 1780 | |
| 2-Chloronaphthalene | ND | | 989 | 297 | |
| 2-Nitroaniline | ND | | 9890 | 1290 | |
| Dimethylphthalate | ND | | 9890 | 1090 | |
| Acenaphthylene | ND | | 989 | 431 | |

Semivolatile Organics by USEPA Method 8270 data for 103253-02 continued...

| | Resu | lt | |
|----------------------------|--------|--------|------|
| Analyte | (ug/kg | g) PQL | MDL |
| 2,6-Dinitrotoluene | ND | 9890 | 1780 |
| 3-Nitroaniline | ND | 9890 | 1680 |
| Acenaphthene | ND | 989 | 489 |
| 2,4-Dinitrophenol | ND | 24700 | 2370 |
| 4-Nitrophenol | ND | 24700 | 1880 |
| Dibenzofuran | ND | 9890 | 1150 |
| 2,4-Dinitrotoluene | ND | 9890 | 1290 |
| Diethylphthalate | ND | 9890 | 1680 |
| 4-Chlorophenylphenylether | ND | 9890 | 1660 |
| Fluorene | ND | 989 | 462 |
| 4-Nitroaniline | ND | 9890 | 1680 |
| 4,6-Dinitro-2-methylphenol | ND | 24700 | 3660 |
| N-Nitrosodiphenylamine | ND | 9890 | 791 |
| 4-Bromophenylphenylether | ND | 9890 | 1310 |
| Hexachlorobenzene | ND | 9890 | 1090 |
| Pentachlorophenol | ND | 9890 | 2080 |
| Phenanthrene | ND | 989 | 211 |
| Anthracene | ND | 989 | 249 |
| Di-n-butylphthalate | ND | 49400 | 8600 |
| Fluoranthene | ND | 989 | 462 |
| Pyrene | ND | 989 | 326 |
| Butylbenzylphthalate | ND | 9890 | 1880 |
| 3,3'-Dichlorobenzidine | ND | 9890 | 1090 |
| Benzo(a)anthracene | ND | 1980 | 603 |
| Chrysene | ND | 1980 | 580 |
| bis(2-Ethylhexyl)phthalate | ND | 24700 | 4050 |
| Di-n-octylphthalate | ND | 9890 | 2570 |
| Benzofluoranthenes | ND | 1980 | 435 |
| Benzo(a)pyrene | ND | 989 | 580 |
| Indeno(1,2,3-cd)pyrene | ND | 989 | 230 |
| Dibenz(a,h)anthracene | ND | 989 | 230 |
| Benzo(g,h,i)perylene | ND | 989 | 163 |
| Carbazole | ND | 24700 | 3860 |
| Atrazine | ND | 9890 | 1680 |
| Biphenyl | ND | 9890 | 1670 |
| Acetophenone | ND | 9890 | 1110 |
| Benzaldehyde | ND | 9890 | 837 |

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-302 |
| Lab ID: | 103253-03 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/10/02 |
| Date Analyzed: | 1/11/02 |
| % Solids | |
| Dilution Factor | 100 |

Semivolatile Organics by USEPA Method 8270

| | | | Recovery Limits | | |
|------------------------|------------|-------|-----------------|------|--|
| Surrogate | % Recovery | Flags | Low | High | |
| Nitrobenzene - d5 | - | X9 | 45 | 135 | |
| 2 - Fluorobiphenyl | 67 | | 51 | 135 | |
| p - Terphenyl - d14 | 68 | | 45 | 135 | |
| Phenol - d5 | 87 | | 43 | 140 | |
| 2 - Fluorophenol | - | X9 | 37 | 140 | |
| 2,4,6 - Tribromophenol | 65 | | 36 | 140 | |

| Result | | | | | | |
|----------------------------|----|---------|--------|-------|------|-------|
| Analyte | | (ug/kg) | | PQL | MDL | Flags |
| Phenol | ND | R | | 9960 | 1990 | |
| bis(2-Chloroethyl)ether | ND | | | 9960 | 1900 | |
| 2-Chlorophenol | ND | 1 | | 9960 | 1490 | |
| 2-Methylphenol | ND | - 1 | | 9960 | 1190 | |
| 3- & 4-Methylphenol | ND | | | 9960 | 1470 | |
| N-nitroso-di-n-propylamine | ND | | | 9960 | 1100 | |
| Hexachloroethane | ND | | | 9960 | 1890 | |
| Nitrobenzene | ND | | | 9960 | 1360 | |
| Isophorone | ND | | | 9960 | 1390 | |
| 2-Nitrophenol | ND | | | 9960 | 1390 | |
| 2,4-Dimethylphenol | ND | | | 9960 | 1100 | |
| Benzoic Acid | ND | | | 49800 | 3390 | |
| bis(2-Chloroethoxy)methane | ND | | | 9960 | 1190 | |
| 2,4-Dichlorophenol | ND | | | 9960 | 1100 | |
| Naphthalene | | 83 | 3300 ナ | 996 | 466 | |
| 4-Chloroaniline | ND | 2 | | 9960 | 926 | |
| Hexachlorobutadiene | ND | | | 9960 | 896 | |
| 4-Chloro-3-methylphenol | ND | 1 | | 9960 | 1100 | |
| 2-Methylnaphthalene | | | 3170 J | 996 | 155 | |
| Hexachlorocyclopentadiene | ND | R | | 9960 | 1400 | |
| 2,4,6-Trichlorophenol | ND | | | 9960 | 1320 | |
| 2,4,5-Trichlorophenol | ND | | | 9960 | 1790 | |
| 2-Chloronaphthalene | ND | | | 996 | 299 | • |
| 2-Nitroaniline | ND | | | 9960 | 1290 | |
| Dimethylphthalate | ND | | | 9960 | 1100 | |
| Acenaphthylene | ND | V | | 996 | 434 | |

Semivolatile Organics by USEPA Method 8270 data for 103253-03 continued...

| Result | | | | | |
|----------------------------|------|----------------|-------|------|--|
| Analyte | (| (ug/kg) | PQL | MDL | |
| 2,6-Dinitrotoluene | ND | <i>\</i> \$− | 9960 | 1790 | |
| 3-Nitroaniline | ND | | 9960 | 1690 | |
| Acenaphthene | ND | | 996 | 493 | |
| 2,4-Dinitrophenol | ND | | 24900 | 2390 | |
| 4-Nitrophenol | ND | ĺ | 24900 | 1890 | |
| Dibenzofuran | ND | * | 9960 | 1160 | |
| 2,4-Dinitrotoluene | ND | | 9960 | 1290 | |
| Diethylphthalate | ND | - | 9960 | 1690 | |
| 4-Chlorophenylphenylether | ND | ľ | 9960 | 1670 | |
| Fluorene | ND | | 996 | 465 | |
| 4-Nitroaniline | ND | | 9960 | 1690 | |
| 4,6-Dinitro-2-methylphenol | ND | | 24900 | 3680 | |
| N-Nitrosodiphenylamine | ND | | 9960 | 797 | |
| 4-Bromophenylphenylether | ND | | 9960 | 1320 | |
| Hexachlorobenzene | ND | | 9960 | 1100 | |
| Pentachlorophenol | ND | and the second | 9960 | 2090 | |
| Phenanthrene | ND | | 996 | 212 | |
| Anthracene | ND | 1 | 996 | 251 | |
| Di-n-butylphthalate | ND | 1 | 49800 | 8660 | |
| Fluoranthene | ND | | 996 | 465 | |
| Pyrene | ND | 91 | 996 | 329 | |
| Butylbenzylphthalate | ND | | 9960 | 1890 | |
| 3,3'-Dichlorobenzidine | ND | | 9960 | 1100 | |
| Benzo(a)anthracene | ND | | 1990 | 607 | |
| Chrysene | ND | | 1990 | 585 | |
| bis(2-Ethylhexyl)phthalate | ND | | 24900 | 4080 | |
| Di-n-octylphthalate | ND | | 9960 | 2590 | |
| Benzofluoranthenes | ND | | 1990 | 438 | |
| Benzo(a)pyrene | ND | | 996 | 585 | |
| Indeno(1,2,3-cd)pyrene | ND | | 996 | 232 | |
| Dibenz(a,h)anthracene | ND | | 996 | 232 | |
| Benzo(g,h,i)perylene | ND | | 996 | 164 | |
| Carbazole | ND | | 24900 | 3880 | |
| Atrazine | ND | | 9960 | 1690 | |
| Biphenyl | ND | | 9960 | 1690 | |
| Acetophenone | ND | | 9960 | 1120 | |
| Benzaldehyde | ND 🖠 | | 9960 | 844 | |

mm 3/20/02

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-001 |
| Lab ID: | 103253-01 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/17/02 |
| Date Analyzed: | 1/28/02 |
| % Solids | |
| Dilution Factor | 1 |

Organochlorine Pesticides and PCBs by USEPA Methods 8081A/8082

| , | | | Recov | ery Limits |
|----------------------|------------|-------|-------|------------|
| Surrogate | % Recovery | Flags | Low | High |
| Tetrachloro-m-xylene | 63 | | 54 | 129 |
| Decachlorobiphenyl | 125 | | 54 | 140 |

| | | Result | | | |
|-----------------------|----|---------|---------|--------|-------|
| Analyte | | (mg/kg) | PQL | MDL | Flags |
| Aroclor 1016 | ND | | 0.655 | 0.0721 | |
| Aroclor 1221 | ND | | 1.31 | 0.309 | |
| Aroclor 1232 | ND | | 0.655 | 0.246 | |
| Aroclor 1242 | ND | | 0.655 | 0.132 | |
| Aroclor 1248 | ND | | 0.655 | 0.132 | |
| Aroclor 1254 | ND | | 0.655 | 0.102 | |
| Aroclor 1260 | ND | | 0.655 | 0.102 | |
| Aldrin | ND | | 0.0655 | 0.0283 | |
| alpha-BHC | ND | | 0.0655 | 0.0204 | |
| beta-BHC | ND | | 0.0655 | 0.0277 | |
| delta-BHC | ND | | 0.0655 | 0.0252 | |
| gamma-BHC (Lindane) | ND | | 0.0655 | 0.025 | |
| Chlordane (technical) | ND | | 0.655 | 0.0923 | |
| 4,4'-DDD | ND | | 0.131 | 0.0127 | |
| 4,4'-DDE | | 0.387 | 0.131 | 0.0151 | C1 |
| 4,4'-DDT | ND | | 0.131 | 0.017 | |
| Dieldrin | ND | | 0.131 | 0.0215 | |
| Endosulfan I | ND | | 0.0655 | 0.0279 | |
| Endosulfan II | | 0.189 | J 0.131 | 0.0253 | Sez |
| Endosulfan sulfate | ND | | 0.131 | 0.0238 | · |
| Endrin | ND | | 0.131 | 0.0236 | |
| Endrin aldehyde | ND | | 0.131 | 0.0267 | |
| Heptachlor | ND | | 0.0655 | 0.0226 | |
| Heptachlor epoxide | ND | | 0.0655 | 0.0239 | |
| Methoxychlor | ND | | 0.655 | 0.0902 | |
| Endrin ketone | ND | | 0.131 | 0.0184 | |

Organochlorine Pesticides and PCBs by USEPA Methods 8081A/8082 data for 103253-01 continued...

| | Result | | | |
|-----------------|---------|--------|--------|-------|
| Analyte | (mg/kg) | PQL | MDL | Flags |
| Toxaphene | ND | 6.55 | 0.411 | _ |
| alpha-Chlordane | ND | 0.0655 | 0.026 | |
| gamma-Chlordane | ND | 0.0655 | 0.0266 | |

 Client Name
 URS Corporation

 Client ID:
 PD-002

 Lab ID:
 103253-02

 Date Received:
 1/9/02

 Date Prepared:
 1/17/02

 Date Analyzed:
 1/28/02

 % Solids
 Dilution Factor
 1

Organochlorine Pesticides and PCBs by USEPA Methods 8081A/8082

| | | | Recovery Limits | |
|----------------------|------------|------------|-----------------|------|
| Surrogate | % Recovery | Flags | Low | High |
| Tetrachloro-m-xylene | 68.2 | | 54 | 129 |
| Decachlorobiphenyl | 26.9 | X 9 | 54 | 140 |

| | Result | | |
|-----------------------|---------|--------|-----------|
| Analyte | (mg/kg) | PQL | MDL Flags |
| Aroclor 1016 | ND UZ | 0.864 | 0.0951 |
| Aroclor 1221 | ND ; | 1.73 | 0.407 |
| Aroclor 1232 | ND | 0.864 | 0.325 |
| Aroclor 1242 | ND | 0.864 | 0.174 |
| Aroclor 1248 | ND | 0.864 | 0.174 |
| Aroclor 1254 | ND | 0.864 | 0.134 |
| Aroclor 1260 | ND | 0.864 | 0.134 |
| Aldrin | ND | 0.0864 | 0.0373 |
| alpha-BHC | ND | 0.0864 | 0.0269 |
| beta-BHC | ND | 0.0864 | 0.0366 |
| delta-BHC | ND | 0.0864 | 0.0332 |
| gamma-BHC (Lindane) | ND | 0.0864 | 0.033 |
| Chlordane (technical) | ND | 0.864 | 0.122 |
| 4,4'-DDD | ND | 0.173 | 0.0168 |
| 4,4'-DDE | ND | 0.173 | 0.0199 |
| 4,4'-DDT | ND | 0.173 | 0.0224 |
| Dieldrin | ND | 0.173 | 0.0283 |
| Endosulfan I | ND | 0.0864 | 0.0368 |
| Endosulfan II | ND | 0.173 | 0.0334 |
| Endosulfan sulfate | ND { | 0.173 | 0.0314 |
| Endrin | ND \ | 0.173 | 0.0312 |
| Endrin aldehyde | ND | 0.173 | 0.0352 |
| Heptachlor | ND | 0.0864 | 0.0298 |
| Heptachlor epoxide | ND | 0.0864 | 0.0316 |
| Methoxychlor | ND | 0.864 | 0.119 |
| Endrin ketone | ND J | 0.173 | 0.0243 |

Organochlorine Pesticides and PCBs by USEPA Methods 8081A/8082 data for 103253-02 continued...

| | Result | | |
|-----------------|---------|--------|-----------|
| Analyte | (mg/kg) | PQL | MDL Flags |
| Toxaphene | ND 05 | 8.64 | 0.542 |
| alpha-Chlordane | ND \ | 0.0864 | 0.0344 |
| gamma-Chlordane | ND 🖖 | 0.0864 | 0.0351 |
| | · | | |

mw 3/20/02

 Client Name
 URS Corporation

 Client ID:
 PD-302

 Lab ID:
 103253-03

 Date Received:
 1/9/02

 Date Prepared:
 1/17/02

 Date Analyzed:
 1/28/02

 % Solids
 Dilution Factor
 1

Organochlorine Pesticides and PCBs by USEPA Methods 8081A/8082

| | | | Recov | ery Limits |
|----------------------|------------|-------|-------|------------|
| Surrogate | % Recovery | Flags | Low | High |
| Tetrachloro-m-xylene | 68.3 | | 54 | 129 |
| Decachlorobiphenyl | 31.3 | X9 | 54 | 140 |

| | Result | | | |
|-----------------------|---------|--------|--------|-------|
| Analyte | (mg/kg) | PQL | MDL | Flags |
| Aroclor 1016 | ND 🔾 | 0.888 | 0.0977 | |
| Aroclor 1221 | ND \ | 1.78 | 0.418 | |
| Aroclor 1232 | ND } | 0.888 | 0.334 | |
| Aroclor 1242 | ND | 0.888 | 0.178 | |
| Aroclor 1248 | ND | 0.888 | 0.178 | |
| Aroclor 1254 | ND | 0.888 | 0.138 | |
| Aroclor 1260 | ND | 0.888 | 0.138 | |
| Aldrin | ND | 0.0888 | 0.0383 | |
| alpha-BHC | ND | 0.0888 | 0.0276 | |
| beta-BHC | ND | 0.0888 | 0.0376 | |
| delta-BHC | ND | 0.0888 | 0.0341 | |
| gamma-BHC (Lindane) | ND | 0.0888 | 0.0339 | |
| Chlordane (technical) | ND | 0.888 | 0.125 | |
| 4,4'-DDD | ND | 0.178 | 0.0173 | |
| 4,4'-DDE | ND | 0.178 | 0.0204 | |
| 4,4'-DDT | ND | 0.178 | 0.023 | |
| Dieldrin | ND M | 0.178 | 0.0291 | |
| Endosulfan I | ND | 0.0888 | 0.0378 | |
| Endosulfan II | ND | 0.178 | 0.0343 | |
| Endosulfan sulfate | ND | 0.178 | 0.0323 | |
| Endrin | ND | 0.178 | 0.032 | |
| Endrin aldehyde | ND 4 | 0.178 | 0.0362 | |
| Heptachlor | ND | 0.0888 | 0.0306 | |
| Heptachlor epoxide | ND I | 0.0888 | 0.0324 | |
| Methoxychlor | ND | 0.888 | 0.122 | |
| Endrin ketone | ND ₩ | 0.178 | 0.025 | |

Organochlorine Pesticides and PCBs by USEPA Methods 8081A/8082 data for 103253-03 continued...

| | | Result | | | |
|-----------------|----|---------------|--------|--------|-------|
| Analyte | | (mg/kg) | PQL | MÐL | Flags |
| Toxaphene | ND | U5 | 8.88 | 0.557 | _ |
| alpha-Chlordane | ND | 1 | 0.0888 | 0.0353 | |
| gamma-Chlordane | ND | \mathcal{V} | 0.0888 | 0.0361 | |
| | | | i | | |

mn 3/20/02

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-001 |
| Lab ID: | 103253-01 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/11/02 |
| Date Analyzed: | 1/11/02 |
| Dilution Factor | 1 |

Metals by ICP - USEPA Method 6010

| | Result | | | |
|-----------|---------|------------|------|-------|
| Analyte | (mg/kg) | PQL | MDL | Flags |
| Calcium | 114 | 282 | 1.73 | J |
| Iron | 52.2 | 28.2 | 5.71 | |
| Lead | 95000 | 2.82 | 1.52 | |
| Magnesium | 7.25 | 282 | 2.81 | j |
| Potassium | ND | 564 | 13.7 | |
| Sodium | ND | 282 | 204 | |

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-001 |
| Lab ID: | 103253-01 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/11/02 |
| Date Analyzed: | 1/11/02 |
| Dilution Factor | ` 5 |

Metals by ICP-MS - USEPA Method 6020

| | Result | | | |
|-----------|---------|--------|--------|-------|
| Analyte | (mg/kg) | PQL | MDL | Flags |
| Arsenic | ND | 0.705 | 0.217 | |
| Aluminum | 118 | 14.1 | 7.05 | |
| Antimony | 0.85 | 4.23 | 0.0283 | J |
| Barium | 0.881 | 0.705 | 0.132 | |
| Beryllium | 0.0747 | 0.141 | 0.062 | J |
| Cadmium | 0.199 | 0.705 | 0.117 | J |
| Chromium | 1.68 | 1.41 | 0.0672 | |
| Cobalt | 62.9 | 0.705 | 0.0531 | |
| Copper | 624 | 1.41 | 0.114 | |
| Manganese | 36.3 | 0.705 | 0.0317 | |
| Nickel | 0.266 | 1.41 | 0.104 | J |
| Selenium | ND . | 4.23 | 0.545 | |
| Silver | 13.2 | 0.705 | 0.0684 | |
| Strontium | 1 | 0.705 | 0.025 | |
| Thallium | 0.303 | 0.705 | 0.0667 | J |
| Vanadium | 0.482 | 1.41 | 0.205 | J |
| Zinc | 5.35 | 5.64 | 0.256 | J |
| Uranium | ND | 0.0705 | 0.0705 | |

 Client Name
 URS Corporation

 Client ID:
 PD-001

 Lab ID:
 103253-01

 Date Received:
 1/9/02

 Date Prepared:
 1/17/02

 Date Analyzed:
 1/20/02

 Dilution Factor
 1

Mercury by CVAA - USEPA Method 7471

| | Result | | |
|---------|---------|--------|-----------|
| Analyte | (mg/kg) | PQL | MDL Flags |
| Mercury | ND | 0.0198 | 0.013 |

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-002 |
| Lab ID: | 103253-02 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/11/02 |
| Date Analyzed: | 1/11/02 |
| Dilution Factor | 1 |

Metals by ICP - USEPA Method 6010

| | Result | | | |
|-----------|---------|------|------|-------|
| Analyte | (mg/kg) | PQL | MDL | Flags |
| Calcium | 3390 | 321 | 1.97 | |
| Iron | 91.3 | 32.1 | 6.51 | |
| Magnesium | 140 | 321 | 3.21 | J |
| Potassium | 10300 | 643 | 15.6 | |
| Sodium | 4970 | 321 | 233 | |

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-002 |
| Lab ID: | 103253-02 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/11/02 |
| Date Analyzed: | 1/11/02 |
| Dilution Factor | 5 |

Metals by ICP-MS - USEPA Method 6020

| | Result | | | |
|-----------|---------|--------|--------|-------|
| Analyte | (mg/kg) | PQL | MDL | Flags |
| Arsenic | ND | 0.804 | 0.247 | |
| Aluminum | 12.2 | 16.1 | 8.04 | J |
| Antimony | 0.0723 | 4.82 | 0.0323 | J |
| Barium | 1.47 | 0.804 | 0.15 | |
| Beryllium | ND | 0.161 | 0.0707 | |
| Cadmium | ND | 0.804 | 0.134 | |
| Chromium | 0.725 | 1.61 | 0.0767 | J |
| Cobalt | 2.8 | 0.804 | 0.0606 | |
| Copper | 0.665 | 1.61 | 0.131 | J |
| Lead | 11.5 | 0.804 | 0.0373 | |
| Manganese | 20 | 0.804 | 0.0362 | |
| Nickel | 0.217 | 1.61 | 0.118 | J |
| Selenium | ND | 4.82 | 0.621 | |
| Silver | 0.133 | 0.804 | 0.0779 | J |
| Strontium | 2.98 | 0.804 | 0.0284 | |
| Thallium | ND | 0.804 | 0.076 | |
| Vanadium | ND | 1.61 | 0.234 | |
| Zinc | 2.88 | 6.43 | 0.292 | J |
| Uranium | ND | 0.0804 | 0.0804 | |

Client Name URS Corporation
Client ID: PD-002
Lab ID: 103253-02

Date Received: 1/9/02
Date Prepared: 1/17/02
Date Analyzed: 1/20/02
Dilution Factor 1

Mercury by CVAA - USEPA Method 7471

| | Result | | |
|---------|---------|--------|-----------|
| Analyte | (mg/kg) | PQL | MDL Flags |
| Mercury | ND | 0.0199 | 0.0131 |

| Client Name | | URS Corporation |
|-----------------|---|------------------------|
| Client ID: | | PD-302 |
| Lab ID: | | 103253-03 |
| Date Received: | | 1/9/02 |
| Date Prepared: | | 1/11/02 |
| Date Analyzed: | | 1/11/02 |
| Dilution Factor | 5 | 1 |

Metals by ICP - USEPA Method 6010

| | Result | | |
|-----------|---------|------|-----------|
| Analyte | (mg/kg) | PQL | MDL Flags |
| Calcium | 3530 | 268 | 1.64 |
| Iron | 85 | 26.8 | 5.42 |
| Magnesium | 141 | 268 | 2.67 J |
| Potassium | 9510 | 536 | 13 |
| Sodium | 4690 | 268 | 194 |

| Client Name | URS Corporation |
|-----------------|-----------------|
| Client ID: | PD-302 |
| Lab ID: | 103253-03 |
| Date Received: | 1/9/02 |
| Date Prepared: | 1/11/02 |
| Date Analyzed: | 1/11/02 |
| Dilution Factor | 5 |

Metals by ICP-MS - USEPA Method 6020

| | Result | | | |
|-----------|---------|-------|--------|-------|
| Analyte | (mg/kg) | PQL | MDL | Flags |
| Arsenic | ND | 0.67 | 0.206 | |
| Aluminum | 8.39 | 13.4 | 6.7 | J |
| Antimony | 0.273 | 4.02 | 0.0269 | J |
| Barium | 1.95 | 0.67 | 0.125 | |
| Beryllium | ND | 0.134 | 0.0589 | |
| Cadmium | ND | 0.67 | 0.112 | |
| Chromium | 1.08 | 1.34 | 0.0639 | J |
| Cobalt | 2.88 | 0.67 | 0.0505 | |
| Copper | 1.24 | 1.34 | 0.109 | J |
| Lead | 116 | 0.67 | 0.0311 | |
| Manganese | 22.1 | 0.67 | 0.0301 | |
| Nickel | 0.157 | 1.34 | 0.0984 | J |
| Selenium | ND | 4.02 | 0.517 | |
| Silver | 0.129 | 0.67 | 0.0649 | J |
| Strontium | 3.17 | 0.67 | 0.0237 | |
| Thallium | ND | 0.67 | 0.0633 | |
| Vanadium | 0.309 | 1.34 | 0.195 | J |
| Zinc | 1.79 | 5.36 | 0.243 | J |
| Uranium | ND | 0.067 | 0.067 | |

 Client Name
 URS Corporation

 Client ID:
 PD-302

 Lab ID:
 103253-03

 Date Received:
 1/9/02

 Date Prepared:
 1/17/02

 Date Analyzed:
 1/20/02

 Dilution Factor
 1

Mercury by CVAA - USEPA Method 7471

| | Result | | |
|---------|---------|--------|-----------|
| Analyte | (mg/kg) | PQL | MDL Flags |
| Mercury | ND | 0.0198 | 0.013 |

Client Name Project Name Date Received URS Corporation Former NPD Lab SI, Troutdale, OR 01-09-02

General Chemistry Parameters

Client Sample ID Lab ID PD-001 103253-01

| | | Date | | | |
|------------------|-----------------|----------|-------|--------|-----|
| Parameter | Method | Analyzed | Units | Result | PQL |
| Cyanide | EPA 9012 / 9013 | 01-15-02 | mg/kg | ND 72 | 0.2 |
| lash Point | EPA 1010 | 01-21-02 |] | 115 | N/A |
| Н | EPA 9040 | 01-17-02 | N/A | 5.19 | N/A |
| Reactive Cyanide | Chap. 7.3.3 | 01-18-02 | mg/kg | NDVZ | 20 |
| Reactive Sulfide | Chap. 7.3.4 | 01-15-02 | 1 1 | ND UZ | 20 |
| Reactive Sulfide | Chap. 7.3.4 | 01-15-02 | mg/kg | ND 02 | |

Client Sample ID Lab ID PD-002 103253-02

| | | Date | | | |
|------------------|-----------------|----------|-------|--------|-----|
| Parameter | Method | Analyzed | Units | Result | PQL |
| Cyanide | EPA 9012 / 9013 | 01-15-02 | mg/kg | ND VZ | 0.2 |
| Flash Point | EPA 1010 | 01-21-02 | °F | 104 | N/A |
| рH | EPA 9040 | 01-17-02 | N/A | 6.05 | N/A |
| Reactive Cyanide | Chap. 7.3.3 | 01-18-02 | mg/kg | ND US | 20 |
| Reactive Sulfide | Chap. 7.3.4 | 01-15-02 | mg/kg | ND US | 20 |
| | | 1 | | | 1 |

Client Sample ID Lab ID PD-302 103253-03

| Parameter | Method | Date Analyzed | Units | Result | PQL |
|------------------|-------------|---------------|-------|--------|-----|
| | | | | | |
| Flash Point | EPA 1010 | 01-21-02 | °F | 106 | N/A |
| рН | EPA 9040 | 01-17-02 | N/A | 6.11 | N/A |
| Reactive Cyanide | Chap. 7.3.3 | 01-18-02 | mg/kg | ND VS | 20 |
| Reactive Sulfide | Chap. 7.3.4 | 01-15-02 | mg/kg | ND UZ | 20 |
| | | 1 | | | |

MN 3/20/02